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Texas Commission on Environmental Quality
Attn: Standards Implementation Team
MC-150 P.O. Box 13087
Austin, TX 78711-3087
Submitted via: IPCOMMNT@tceq.texas.gov

Re: 2021 Revisions to the Procedures to Implement the Texas Water Quality Standards

Dear TCEQ:

I am submitting these comments on behalf of Environmental Integrity Project, Clean Water Action, Public Citizen, Sierra Club, Texas Conservation Alliance, Ingleside on the Bay Coastal Watch Association, Save Our Springs Alliance, Caddo Lake Institute, Environmental Defense Fund, Wimberley Valley Watershed Association, Bayou City Waterkeeper, and the Texas Center for Policy Studies ("Commenters"). The current Procedures to Implement the Texas Surface Water Quality Standards ("IPs") result in the consistent issuance of permits causing the significant lowering of water quality without a showing of economic or social necessity. The implementation procedures thereby fail to implement the Antidegradation Policy of the Water Quality Standards as required of a state permitting program under federal law.[1] Commenters ask that TCEQ adopt transparent Tier 2 implementation procedures that are consistent with TCEQ's rules, as well as the governing purpose of the Clean Water Act to "maintain the chemical, physical, and biological integrity of the Nation's waters."[2]

Background on Antidegradation Policy

TCEQ seeks to protect the existing and attainable uses of surface water in the state through

[1] 30 TAC § 307.5(b)(2) and 40 C.F.R. § 131.12(a)(2).
[2] CWA §101(a), 33 U.S.C. § 1251(a).

the water quality criteria and the anti-degradation policy. The anti-degradation policy involves a three-tiered review, and is a required element of the water quality standards. Tier 1 applies to all waters in the state, and requires the protection of existing and attainable uses in all waters of the state.[3] Tier 2 only applies to high quality waters, which consist of all "fishable/swimmable" waters.[4]

The Tier 2 review seeks to maintain the highest water quality historically existing in that water unless the lowering of water quality can be affirmatively demonstrated as necessary for important economic or social development.[5] TCEQ Water Quality Standards at 30 Tex. Admin. Code § 307.5(b)(2) provide that:

> No activities subject to regulatory action that would cause degradation of waters that exceed fishable/swimmable quality are allowed unless it can be shown to the commission's satisfaction that the lowering of water quality is necessary for important economic or social development. Degradation is defined as a lowering of water quality by more than a de minimis extent, but not to the extent that an existing use is impaired. Water quality sufficient to protect existing uses must be maintained. Fishable/swimmable waters are defined as waters that have quality sufficient to support propagation of indigenous fish, shellfish, terrestrial life, and recreation in and on the water.

This provision is intended to implement EPA's minimum standards at 40 C.F.R. § 131.12(12(a)(2). Published EPA guidance notes that the showing of social and economic necessity is intended to impose a significant burden on the applicant:

> [40 C.F.R. § 131.12(a)(2)] is intended to provide relief only in a few extraordinary circumstances where the economic and social need for the activity clearly outweighs the benefit of maintaining water quality above that required for "fishable/swimmable" water, and both cannot be achieved. The burden of demonstration on the individual proposing such activity will be very high.[6]

Texas' Tier 2 rule, at 30 Tex. Admin. Code § 307.5(b)(2), is identical to the federal minimum standard in the C.F.R. except Texas added a "de minimis" exception. This exception is

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[3] Tex. Admin. Code § 307.5(b)(1) ; *see also* EPA Water Quality Standards Regulation, 40 C.F.R. § 131.12(a)(1), 30.
[4] 30 Tex. Admin. Code § 307.5(b)(2).
[5] 40 C.F.R. § 131.12(a)(2), 30 Tex. Admin. Code § 307.5(b)(2).
[6] Envtl. Prot. Agency, Water Quality Standards Handbook 4-1 (2d ed. 1993), (https://www.epa.gov/sites/production/files/2014-10/documents/handbook-chapter4.pdf).

also known as a "significance threshold" because it exempts TCEQ from requiring a socioeconomic justification if degradation of the water is found to be "de minimis," or trivial.

The Implementation Procedures lack the clarity needed for transparent decision-making.

TCEQ permit writers treat adherence to the Implementation Procedures' antidegradation guidance as tantamount to compliance with the regulatory Water Quality Standards. In recent TCEQ briefing at the State court of appeals, TCEQ explained its view this way:[7] "the [Implementation Procedures] were drafted to 'ensure' that there will not be degradation, and it follows that applying the limits derived from following the IPs, as [the permit writer] did, will prevent degradation."

In fact, of course, the Water Quality Standards set objective criteria that are to be achieved; they do not simply demand certain processes be followed. But, given the agency staff's reverence for the Implementation Procedures, that document needs to be very precise in its procedural recommendations.

The Implementation Procedures, however, are frequently very imprecise in their guidance. Consider the guidance for Tier 2 antidegradation review. The Implementation Procedures include a section on "Evaluating the Potential for Degradation of Water Quality."[8] That section provides that the baseline water quality from which degradation is determined is the 1975 water quality, which is "estimated" from present conditions, unless there is information indicating degradation has occurred since 1975. The Implementation Procedures provide no recommended procedures for estimating the 1975 conditions from present conditions. The

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[7] Brief of Appellant TCEQ, p. 34, *Texas Commission on Environmental Quality and the City Of Dripping Springs vs. Save Our Springs Alliance, Inc*., Cause No. 08-20-00239-CV, Tex. 8th Dist. Court of Appeals (2020).

[8] Tex. Commission on Environmental Quality. Procedures to Implement Texas Surface Water Quality Standards, (2010), p. 63.

Implementation Procedures provide no guidelines as to the type of information that, if collected, might indicate that post-1975 degradation has occurred.

TCEQ's Implementation Procedures provide "initial" and "additional" screening guidelines to determine whether a discharge causes degradation. But the Implementation Procedures also say such guidelines do not define degradation. The only definition of "degradation" is found in TCEQ's regulations, where degradation is defined as "a lowering of water quality by more than a de minimis extent, but not to the extent that an existing use is impaired."[9] The Implementation Procedures address this "de minimis" significance threshold by providing examples of discharges where degradation is likely or unlikely to occur. But the examples for likely degradation are so narrow as to create a situation where virtually all discharges would be considered "de minimis," even while providing that discharges falling within these narrow situations might *still* be found de minimis.

The Implementation Procedures offer the guidance that discharges that use less than 10% of the assimilative capacity of a water body at the edge of a mixing zone are "usually" not a degradation concern. "Assimilative capacity" is undefined, and the circumstances in which consumption of less than 10% of it would be a degradation concern are not explained.

Phosphorus contamination is of particular concern in preserving water quality in Central Texas streams. The portion of the Implementation Procedures addressing degradation attributable to phosphorus and nitrogen, provides that degradation will be unlikely from "[i]ncreased loading of total phosphorus, nitrate, or total nitrogen—if it can be 'reasonably demonstrated' that 'detrimental increases' to the growth of algae or aquatic vegetation will not occur."[10] There is no guidance as to what a reasonable demonstration might look like or as to

[9] 30 TAC § 307.5(b)(2).

[10] Implementation Procedures (2010), p. 65 (internal apostrophes added).

how detrimental increase in plant growth might be differentiated from non-detrimental plant growth.

This "Evaluating the Potential for Degradation of Water Quality" section of the Implementation Procedures says the "assimilative capacity" rule of thumb does not apply to degradation caused by oxygen depletion, pH or temperature, which would lead one to believe the rule of thumb is applicable to degradation caused by nutrients, such as phosphorus. But, next sentence provides, "The screening procedure for nutrients is explained in a previous chapter of this document in the section entitled "Nutrients" beginning on page 26."

The "Nutrients" section provides[11] that the need for a phosphorus limit in a permit for a discharge to a stream or river (and not near a reservoir) can be judged by considering eleven factors, each of which should be rated on a 3-point scale of concern (low, moderate, and high). One may disagree on the relevance of some factors, e.g., "consistency with other permits," but the 11-factor/3-levels-of-concern methodology does give the permit writer a clear roadmap for decisionmaking.

Unfortunately, after setting up a detailed methodology, the Implementation Procedures devolve into a nearly useless guidance on how the permit writer should use the results derived from applying the methodology. In its entirety, this is what the Implementation Procedures say (p. 52) about using the output of the methodology:

> Once the individual screening factors have been rated, they provide the basis for a "weight-of-evidence" assessment to identify the need for a nutrient effluent limit. An effluent limit for TP is probably needed when a substantial number of screening factors are rated moderate and high. If the overall assessment determines that the discharge is at a moderate level of concern, a limit might be indicated if one or more of the factors was particularly elevated. A monitoring requirement may be appropriate if a TP effluent limit is not required.

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[11] Implementation Procedures (2010), p. 29 ("Effluent Limits for Total Phosphorus") and, in more detail, p. 47 ("Nutrient Screening for Streams and Rivers").

> Alternatively, numeric values can be assigned to each level of concern (for example, Low=1, Moderate=3, High=5) and the values averaged. If the average is <2, a TP limit is probably not needed. If the average is > 4, a TP limit is probably needed. If the average is 2-4, either TP monitoring or a TP limit is possible, depending on the specifics of the case. Note that the importance and weight of the individual screening factors can vary from one site to another.
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> If an effluent limit for TP is indicated, the screening factors and levels of concern are used to help determine the specific effluent limit for TP. Initial assessments can be improved and reconsidered in light of additional site-specific data, more extensive models, and evaluations.

One does not know what number of screening factors is a "substantial" number, and one has no guidance as to what constitutes a "particularly elevated" factor. If the alternative scheme of applying and averaging numerical values is used, what to do in the middle, i.e., 2-4 average, range is completely vague: "either TP monitoring or a TP limit is possible, depending on the specifics of the case. Note that the importance and weight of the individual screening factors can vary from one site to another." If the decision is to put in the permit a total phosphorus limit, the guidance on what that limit should be is quite unhelpful: "the screening factors and levels of concern are used to help determine the specific effluent limit for TP."

This is difficult material, and one wants to be realistic about how proscriptive guidance can be. But, given that TCEQ treats the Implementation Procedures as the near equivalent of regulation, the Implementation Procedures need to be much more precise than they are.

TCEQ should adopt a more transparent and objective procedure to evaluate whether a permitting action will cause "degradation"

Determining significance in reference to assimilative capacity is a useful tool in creating a more meaningful and transparent procedure for determining whether a lowering of water quality is "de minimis" so as to not constitute degradation. While TCEQ regulations do not define "assimilative capacity," EPA in guidance has defined the term as "the difference between the

applicable water quality criterion for a pollutant parameter and the ambient water quality for that pollutant parameter where it is better than the criterion."[12] EPA's Office of Science and Technology (OST) has issued guidance providing that assimilative capacity is the most appropriate way to define a significance threshold, and that the lowering of water quality by more than 10% of assimilative capacity is significant.[13] At the same time, EPA has recognized that there is not a particular proportion of assimilative capacity consumption that could reasonably be considered *insignificant* for all parameters, in all waters, at all times, for all activities.[14] Thus, a discharge consuming less than 10% of assimilative capacity cannot be presumed to be insignificant.

The EPA also recommends implementing a cumulative cap on the use of total assimilative capacity to address situations where there are multiple or repeated increases in discharges. The purpose of the cumulative cap is to avoid a situation where the total assimilative capacity of a water body is used up without there having been a single antidegradation review. Without a cumulative cap, this can happen as the result of multiple loadings having been considered insignificant in isolation. To implement this, EPA guidance recommends that once a certain percentage of assimilative capacity is used up, the state should subject <u>any</u> further lowering of water quality to an antidegradation review.

Commenters recommend that TCEQ change its Implementation Procedures to conform with both EPA guidance and TCEQ's own regulations. For a pollutant and water body segment for which there is a defined pollutant parameter, the IPs should define "assimilative capacity" as

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[12] Memorandum from Ephriam S. King, Director of the EPA Office of Science and Technology, to Regional Water Management Division Directors on Significance Thresholds, Regions 1–10 (Aug. 10, 2005) available at https://www.epa.gov/nutrient-policy-data/tier-2-antidegradation-reviews-and-significance-thresholds-memo (hereinafter "OST Memo").

[13] *Id.*

[14] Water Quality Standards Regulatory Revisions, 80 Fed. Reg. 51020, 51034 – 51035 (Aug. 21, 2015) (Excerpted at Appendix F to this Brief, with emphasis added therein) quoting *Kentucky Waterways* at 483, and *Alabama Power v. Costle*, 636 F.2d. 323, 361 (D.C. Cir. 1979).

EPA guidance has defined the term.[15] For other pollutants and water bodies, the IPs should state an "assimilative capacity" definition. The IPs should state clearly that any discharge that would consume more than 10% of a receiving waters' assimilative capacity is considered to cause degradation.[16] A broad exemption, such as the current procedures embody, is contrary to the explicit characterization of the exemption as "de minimis" – an inherently *narrow* term - in 30 TAC § 307.5(b)(2).

Commenters also support adding a cumulative cap to the significance threshold, to avoid cumulative reductions in assimilative capacity over time to occur without socioeconomic justifications. As EPA guidance recommends, TCEQ's IPs should provide a mechanism for tracking reductions in assimilative capacity for each water body, and once assimilative capacity has been reduced more than 10%, require a demonstration of necessity for important economic or social development for every subsequent lowering of water quality.

An Objective Standard Facilitates Public Participation

The intent of the antidegradation policy is to maintain and protect high quality waters and not to allow for any degradation beyond a de minimis level without a demonstration, *with opportunity for public input*, that such a lowering is necessary and important. Absent an effective antidegradation policy, decisions can be made to diminish valuable natural resources (e.g., the assimilative capacity of high quality waters) without public consideration of necessity and importance.

Establishing an assimilative capacity threshold above which permitting actions are deemed to cause degradation makes the whole antidegradation review process more likely to be understood

[15] OST Memo at p. 1.

[16] A discharge consuming less than 10% of a receiving water body's assimilative capacity under certain circumstances could constitute a greater than de minimis lowering of water quality. So, while commenters support establishing such a threshold for presuming that discharges in excess of this amount constitute degradation,

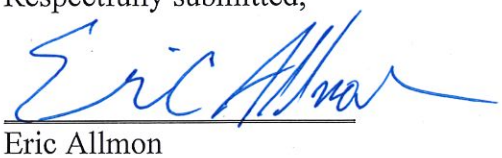
by the public. Such an approach provides an understandable standard and informs the public of what is at stake. The current IPs make it impossible for members of the public to objectively evaluate whether an applicant has made the asserted demonstration that a discharge will not cause degradation.

The cumulative cap on reductions in assimilative capacity also improves public participation. As discussed above, commenters recommend that once a water body's assimilative capacity has been reduced by more than 10% by cumulative discharges over time, every new instance of lowering water quality should be subject to a full Tier 2 socioeconomic necessity review. The public would then be able to participate in the required cost/benefit analysis, instead of left in the dark while valuable natural resources are diminished over time.

Conclusion

For these reasons, Commenters ask that TCEQ revise its "Procedures to Implement the Texas Water Quality Standards" to establish a more transparent procedure for determining whether degradation is anticipated which properly reflects the narrow scope of the "de minimis" exception contained in 30 TAC § 307.5(b)(2).

Respectfully submitted,



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